

SAFETY DATA SHEET

PF 560 Gravgard Labelled 446G - Black

Section 1. Identification

Product identifier : PF 560 Gravgard Labelled 446G - Black
Product code : PF 560
Other means of identification : Not available.
Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Supplier's details : Pro Form Products Ltd.
604 McGeachie Drive
Milton, Ontario L9T3Y5

Emergency telephone number (with hours of operation) : CHEMTREC 24 Hour Emergency Phone(s):
USA & Canada 800-424-9300
International +1 703 741-5970

Section 2. Hazard identification

Classification of the substance or mixture : AEROSOLS - Category 1
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : Extremely flammable aerosol. Pressurized container: may burst if heated.
Causes skin irritation.
Causes serious eye irritation.
May cause cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not breathe dust or mist. Wash hands thoroughly after handling. Do not pierce or burn, even after use. Wear protective gloves, protective clothing and eye or face protection.

Response

: IF exposed or concerned: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage

: Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Section 2. Hazard identification

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	Synonyms	% (w/w)	Identifiers	
dimethyl carbonate	Carbonic acid, dimethyl ester; solution of not more than 15 % by weight of lithium hexafluorophosphate (CAS RN 21324-40-3) in a mixture of ethylene carbonate (CAS RN 96-49-1), dimethyl carbonate (CAS RN 616-38-6) and ethyl methyl carbonate (CAS RN 623-53-0), contains organic carbonate derivatives as additives; METHYL CARBONATE	≥15 - ≤40	CAS: 616-38-6	
toluene	Benzene, methyl-; Methylbenzene; Toluol; Phenyl methane; Methyl benzol; toluene, pure; toluene, crude; antisal 1A; benzene, methyl-; CP-25; methane, phenyl-; methylbenzene; methylbenzol; NCI-CO7272; phenyl methane; RCRA waste number U220; toluol; tolu-sol; methacide; 1-methylbenzene; methacide; Totuol; Methacida	≥10 - ≤30	CAS: 108-88-3	
propane	Propyl hydride; n-Propane; Dimethyl methane; E 944; HC-290; R290; PROPYL HYDRID; Normal propane; liquefied petroleum gas; Propagas; n-propana	≥7 - ≤13	CAS: 74-98-6	
Butadiene-styrene copolymer	Styrene, 1,3-butadiene polymer; poly[(1,3-butadiene)-co-ethenylbenzene]; styrene-butadiene copolymer, SB polymer; poly(butadiene-co-styrene); styrene-butadiene copolymer; SB polymer; Styrene polymer with 1,3-butadiene; BUTADIENE-STYRENE RUBBER; 1,3-BUTADIENE-STYRENE COPOLYMER; 1,3-BUTADIENE, POLYMER WITH STYRENE; 1,3-BUTADIENE-ETHENYLBENZENE COPOLYMER; RUBBER, BUTADIENE-STYRENE	≥5 - ≤10	CAS: 9003-55-8	
Isobutane	Propane, 2-methyl-; Propane, 2-methyl- (isobutane); 2-Methylpropane; Propane, 2-methyl; Methyl-2 propane; Trimethylmethane; 1,1-Dimethylethane	≥5 - ≤10	CAS: 75-28-5	
Distillates (petroleum), hydrotreated light	Distillates (petroleum), hydro- treated light; Kerosine - unspecified;	≥1 - ≤5	CAS: 64742-47-8	

Section 3. Composition/information on ingredients

	Distillates, petroleum, hydrotreated light; Hydrotreated light distillate; Jet fuels; lamp oil; Kerosene (petroleum), hydrotreated; Hydrotreated light distillates (petroleum); DISTILLATES; Deodorized kerosene; Dearomatized kerosine			
carbon black, non respirable	Lampblack; Acetylene black; C.I. 77266; C.I. Pigment Black 6; C.I. Pigment Black 7; Charcoal	≥0.1 - ≤1	CAS: 1333-86-4	
Quartz	α-quartz, non-respirable; quartz, non-respirable	≥0.1 - ≤1	CAS: 14808-60-7	

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

Section 4. First-aid measures

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe dust or mist. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
toluene	CA Saskatchewan Provincial (Canada, 4/2021) Absorbed through skin. STEL 15 minutes: 60 ppm. TWA 8 hours: 50 ppm. CA British Columbia Provincial (Canada, 8/2025) Repr. TWA 8 hours: 20 ppm. CA Ontario Provincial (Canada, 6/2019) TWA 8 hours: 20 ppm. CA Quebec Provincial (Canada, 2/2024) Ototoxicant. TWA 8 hours: 20 ppm. CA Alberta Provincial (Canada, 3/2023) Absorbed through skin. OEL 8 hours: 50 ppm. OEL 8 hours: 188 mg/m ³ .
propane	CA Saskatchewan Provincial (Canada, 4/2021) STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. CA British Columbia Provincial (Canada, 8/2025) Oxygen depletion [asphyxiant] , Explosive potential. CA Ontario Provincial (Canada, 6/2019) Oxygen depletion [asphyxiant] , Explosive potential. CA Quebec Provincial (Canada, 2/2024) Oxygen depletion [asphyxiant] , Explosive potential. CA Alberta Provincial (Canada, 3/2023) OEL 8 hours: 1000 ppm.
Isobutane	CA Saskatchewan Provincial (Canada, 4/2021) [Aliphatic hydrocarbon gases, Alkane [C1-C4]] STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. CA Saskatchewan Provincial (Canada, 4/2021) [Butane] STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. CA British Columbia Provincial (Canada, 8/2025) [butane, all isomers] Explosive potential. STEL 15 minutes: 1000 ppm. CA Ontario Provincial (Canada, 6/2019) [Butane, All isomers] Explosive potential. STEL 15 minutes: 1000 ppm. CA Alberta Provincial (Canada, 3/2023) [Aliphatic Hydrocarbon gases, Alkane (C2-C4)] OEL 8 hours: 1000 ppm. CA Quebec Provincial (Canada, 2/2024) STEV 15 minutes: 1000 ppm.
Distillates (petroleum), hydrotreated light	CA British Columbia Provincial (Canada, 8/2025) [kerosene/jet fuels] Absorbed through skin.

Section 8. Exposure controls/personal protection

carbon black, non respirable

Quartz

TWA 8 hours: 200 mg/m³ (as total hydrocarbon vapour). Notes: Application restricted to conditions in which there are negligible aerosol exposures.

CA Ontario Provincial (Canada, 6/2019)

Absorbed through skin.

TWA 8 hours: 200 mg/m³ (as total hydrocarbon vapour).

CA Quebec Provincial (Canada, 2/2024)

[kerosene] C3. Absorbed through skin.

TWAEV 8 hours: 200 mg/m³.

CA Alberta Provincial (Canada, 3/2023)

[Kerosene/Jet fuels] Absorbed through skin.

OEL 8 hours: 200 mg/m³ (as total hydrocarbon vapour).

CA Saskatchewan Provincial (Canada, 4/2021)

STEL 15 minutes: 7 mg/m³.

TWA 8 hours: 3.5 mg/m³.

CA British Columbia Provincial (Canada, 8/2025) Carc 2B.

TWA 8 hours: 3 mg/m³. Form: inhalable.

CA Ontario Provincial (Canada, 6/2019)

TWA 8 hours: 3 mg/m³. Form: inhalable particulate matter.

CA Quebec Provincial (Canada, 2/2024)

C3.

TWAEV 8 hours: 3 mg/m³. Form: inhalable aerosol fraction.

CA Alberta Provincial (Canada, 3/2023)

OEL 8 hours: 3.5 mg/m³.

CA Quebec Provincial (Canada, 2/2024)

[Silica Crystalline - Tripoli]

TWAEV 8 hours: 0.1 mg/m³. Form: respirable aerosol fraction.

CA Quebec Provincial (Canada, 2/2024)

[Silica Crystalline -Quartz] C2.

TWAEV 8 hours: 0.1 mg/m³. Form: respirable aerosol fraction.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

- : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Section 8. Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Color** : Black.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : Technically not possible to measure
- Boiling point or initial boiling point and boiling range** : Not applicable.
- Flash point** : Closed cup: -104.444°C (-156°F)
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Lower: 1.1%
Upper: 12.8%
- Vapor pressure** : 110.3 kPa (826.97 mm Hg)
- Relative vapor density** : Not available.
- Relative density** : Not available.
- Density** : 0.943 g/cm³
- Solubility in water** : Not available.
- Miscible with water** : No.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : 220°C (428°F)

Section 9. Physical and chemical properties

Decomposition temperature	: Not applicable.
Heat of combustion	: 16.06 kJ/g
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): Not available.

Particle characteristics

Median particle size : Not applicable.

Aerosol product

Type of aerosol : Spray

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame).
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name

dimethyl carbonate

Result

Rat - Oral - LD50

13 g/kg

Rabbit - Dermal - LD50

>5 g/kg

Rat - Dermal - TDLo

26.4 mg/kg

Toxic effects: Skin After systemic exposure - Dermatitis, irritative Metabolism (intermediary) - Effect on inflammation or mediation of inflammation

Rat - Oral - LD50

5001 mg/kg

Rat - Dermal - LD50

5001 mg/kg

Rat - Inhalation - LC50 Vapor

49 g/m³ [4 hours]

Rat - Inhalation - LC50 Vapor

658000 mg/m³ [4 hours]

Rat - Oral - LD50

>15400 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity)

Rat - Inhalation - LC50 Dusts and mists

12.6 mg/l [4 hours]

toluene

Isobutane

carbon black, non respirable

Quartz

Section 11. Toxicological information

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name

toluene

Result

Pig - Skin - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 250 uL

Rabbit - Skin - Mild irritant

Amount/concentration applied: 435 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

toluene

Butadiene-styrene copolymer

Result

Rabbit - Eyes - Severe irritant

Amount/concentration applied: 0.1 Ml

Rabbit - Eyes - Mild irritant

Duration of treatment/exposure: 24 hours

Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Section 11. Toxicological information

Product/ingredient name	IARC	NTP	ACGIH
toluene	3	-	A4
Butadiene-styrene copolymer	3	-	-
Distillates (petroleum), hydrotreated light	-	-	A3
carbon black, non respirable	2B	-	A3
Quartz	1	Known to be a human carcinogen.	-

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name

Result

toluene

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Distillates (petroleum), hydrotreated light

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name

Result

toluene

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

Quartz

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

Aspiration hazard

Product/ingredient name

Result

toluene

ASPIRATION HAZARD - Category 1

Distillates (petroleum), hydrotreated light

ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Not available.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 11. Toxicological information

- Skin contact** : Adverse symptoms may include the following:
 irritation
 redness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- Conclusion/Summary [Product]** : Not available.

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : Suspected of damaging fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
dimethyl carbonate	13000	N/A	N/A	N/A	N/A
toluene	5001	5001	N/A	49	N/A
Isobutane	N/A	N/A	N/A	658	N/A
Quartz	N/A	N/A	N/A	N/A	12.6

Section 12. Ecological information

Toxicity

Product/ingredient name	Result
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Section 12. Ecological information

toluene

Acute - LC50 - Fresh water

Fish - Coho salmon, silver salmon - *Oncorhynchus kisutch* - Fry

Weight: 1 g

5500 µg/l [96 hours]

Effect: Mortality

Acute - EC50 - Fresh water

Daphnia - Water flea - *Daphnia magna* - Juvenile (Fledgling, Hatchling, Weanling)

6000 µg/l [48 hours]

Effect: Intoxication

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: ≤24 hours

1 mg/l [21 days]

Effect: Mortality

Acute - EC50 - Fresh water

Algae - Green algae - *Raphidocelis subcapitata*

12.5 mg/l [72 hours]

Effect: Growth

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Ingredient name

toluene

Conclusion/Summary

ECHA: toluene is readily biodegraded by both non-adapted and adapted sewage sludge inocula. Three of these studies were also used as part of a weight of evidence that toluene is readily biodegradable in the EU RAR for toluene (2003).

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
toluene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
dimethyl carbonate	0.354	-	Low
toluene	2.73	90	Low
propane	1.09	-	Low
Isobutane	1.09	-	Low

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

- Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	TDG Classification	DOT Classification	IMDG	IATA
UN number	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	Aerosols, flammable
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Additional information

- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
- DOT Classification** : **Reportable quantity** 6175.9 lbs / 2803.9 kg [785.48 gal / 2973.4 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

- Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

Canadian lists

- Canadian NPRI** : The following components are listed: toluene; propane; butane (all isomers); hydrotreated light distillate
- CEPA Toxic substances** : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Section 15. Regulatory information

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

[Inventory list](#)

Canada : Not determined.

United States : Not determined.

Section 16. Other information

[History](#)

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Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- HPR = Hazardous Products Regulations
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- SGG = Segregation Group
- UN = United Nations

🔍 Indicates information that has changed from previously issued version.

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